What is a Carcinoid Tumor

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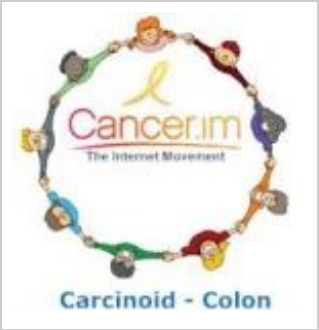

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A carcinoid tumor is not the same thing as a carcinoma. A carcinoma is an invasive malignancy that develops within the epithelium (or lining layer) of one of the body's many cavities or organs. The cells of a Carcinoid tumor can manufacture more potent and stronger biologically active substances that cause various problems and symptoms, as well as clues to its presence. There are different locations that Carcinoid tumors can occur, including throughout the Gastrointestinal tract and lung.

Gastrointestinal carcinoid tumor :
This is an indolent (slow-growing) cancer that forms in cells that make hormones in the lining of the gastrointestinal tract (the stomach and intestines). It usually occurs in the appendix (a small fingerlike pouch of the large intestine), small intestine, or rectum. Having gastrointestinal carcinoid tumor increases the risk of forming other cancers of the digestive system. For example, a carcinoma (adenocarcinoma) of the lung is a lung cancer, a typically very malignant tumor. However, a carcinoid tumor of the lung, arises from a completely different kind of tissue, behaves very differently, and has a completely different treatment and outlook from standard lung cancer.

Carcinoids of the lung represent only about 12 to 15 percent of all carcinoids, so they are rare even within the category of carcinoid tumors, which are themselves very unusual. (The annual incidence of carcinoid tumors as a whole is 4 per million population.)

Other kinds of Carcinoid tumors
Lung carcinoids are actually not strictly speaking lung cancers at all, but bronchial tumors, arising from the wall of the airway. Lung (bronchial) carcinoid tumors account for about two percent of all lung tumors. Thus, one might expect about 3,600 of these tumors in the US each year. The peak incidence for bronchial carcinoid is the fifth decade of life, and men are affected twice as commonly as women. There is no connection between smoking and the development of bronchial carcinoid. Surprisingly, approximately 4 percent of all bronchial carcinoid tumors occur in children.

Another distinguishing feature of carcinoid tumors is that they develop in groups of cells that have the ability to produce very potent, biologically active substances whose effects on the body are profound. These cells, called neuroendocrine cells, are left over from early embryonic development, and are widespread in the body, particularly in the digestive tract. The appendix, for example, typically harbors clusters of embryonic neuroendocrine cells, and so do the intestines. These cells can also be found in other locations, such as the reproductive organs, the pancreas and the lungs - in any organ or structure, in fact that is derived from the primitive embryonal gut.

Carcinoids of the lung have what is called 'neuroendocrine differentiation' (that is, they contain specialized cells that are able to secrete hormones and neurotransmitters) but their relationship to small cell carcinomas, another kind of often neuroendocrine lung cancer, is controversial. Neuroendocrine tumors of the lung run on a continuum from typical carcinoids at the least aggressive end, through atypical carcinoids, large cell neuroendocrine tumors and finally, at the most aggressive end, small cell lung cancers. These are all related, but histologically and behaviorally distinct tumors. In fact, there is a distinct tendency to misdiagnose carcinoid tumors of the lung as small cell lung cancers, a significant problem since they are entirely distinct entities with a very different prognosis from small cell lung cancer.

Bronchial carcinoid can be divided into two separate categories, Kulchitsky cell (KCC) I, or Kulchitsky cell carcinoma (KCC) II. KCC I is also known as typical carcinoid, while KCC II is known as atypical carcinoid.

KCC I (typical) carcinoids are in general less aggressive, smaller, and much less likely to metastasize than KCC II (atypical) bronchial carcinoids: only 2-3 percent of these tumors metastasize. For unknown reasons, many more women than men suffer from KCC I bronchial carcinoids - ten times as many, in fact. Adults or children may be affected by bronchial carcinoids.

KCC II (atypical) tumors, on the other hand, affect men more often than women, and are more aggressive than KCC I, accounting for as many as a quarter of all bronchial carcinoids. As many as half of all people with KCC II already have lymphatic metastases at the time of diagnosis, and metastasis to brain, bone and liver is common at the time of diagnosis in up to a third of patients.

It is commonly misunderstood that a carcinoid tumor is the same as a carcinoma. It is a persistent malignancy of one of the body’s cavities or organs. Therefore, when we say there is a carcinoma of the lung, or in other words lung cancer, it is of a very serious nature as it a very malevolent tumor. The carcinoid growth of the lung is not similar, and occurs from a very different kind of tissue, which has a completely different treatment from the standard lung cancer.

Regarding carcinoids in lung, this does not refer to cancer but bronchial tumors, which arise from the wall of the airway. This kind of lung carcinoid bronchial tumor, account for two per cent of the total lung tumors. The total will come between 3000 and 4000 in the United States each year. It generally occurs when the person reaches his late forties or early fifties. It is interesting to note that in this kind of tumor, men are affected more than women and it is not related to their smoking habit as it is generally believed. At least 4 percent of the affected people are children.

The important factor to note about the carcinoid tumors is that the cells have the ability to manufacture more potent and stronger biologically active substances, which can affect the body greatly. These cells are actually called neuroendocrine cells. The cell is actually left over from a very early embryonic development and is seen all over the body, especially in the digestive tract. We can mainly find it in the appendix where we can find clusters of these cells. We can also find them in the intestines, reproductive organs, and pancreas and in

the lungs. It can be found in any organ or structure, which is obtained from the primitive embryonal tissue.

It is known that carcinoids have neuroendocrine differentiation, which means that they contain cells that can secrete neurotransmitters and hormones, how they are related to the tiny cell carcinomas is still a topic of controversy. We have the least aggressive typical carcinoids in the neuroendocrine tumors of the lung, to the atypical carcinoids to the extremely aggressive small cell lung cancers. Though they are all related, they are very different tumors. There is a general habit of diagnosing carcinoids as small cell lung cancers, which is a serious problem as they are very different entities.

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